Activity 5 — Bisectors

Objectives

This activity is designed to help students discover the following theorems:

- ✔ *Perpendicular Bisector Theorem and its converse*
- ✔ *Angle Bisector Theorem*

Vocabulary

segment
angle
perpendicular bisector
equidistant
endpoint
ray
angle bisector

Prerequisites

Students must understand how to:

- ✔ *Create, measure and label segments.*
- ✔ *Find the distance between two points.*
- ✔ *Create, measure and label angles.*

Answers

5. They are equal.
9. A point that is on the perpendicular bisector of a segment will be equidistant from the two endpoints of a segment.
10. Isosceles triangle.
20. Yes.
22. Yes.
24. Yes.
26. Yes.
28. Yes.
29. Yes.
30. If a point is equidistant from the two endpoints of a segment then it is on the perpendicular bisector of the segment.
41. They are equal.
43. If a point is on the angle bisector of an angle then it is equidistant from both sides of the angle.

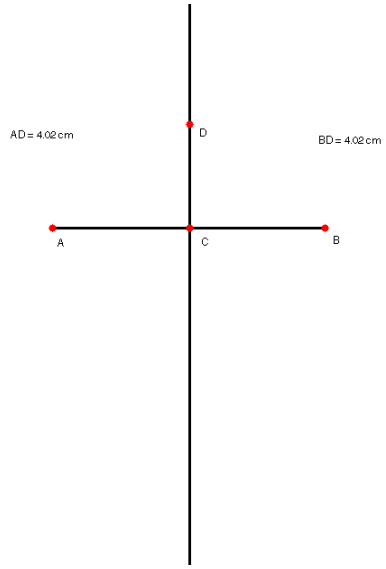

Figure A.2

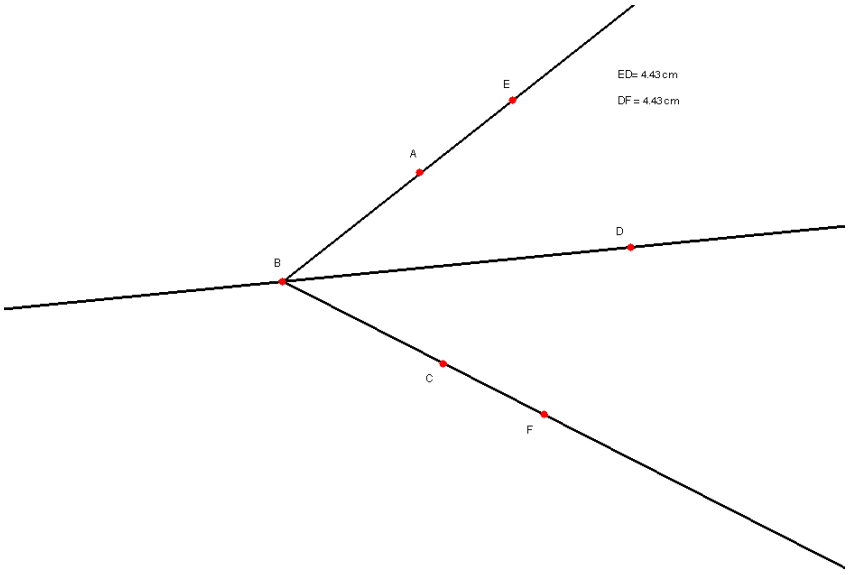

Figure A.3